



# U.S. Environmental Protection Agency Applicability Determination Index

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**Control Number: M040017**

**Category:** MACT  
**EPA Office:** Region 4  
**Date:** 07/12/2004  
**Title:** Methyl Ethyl Ketone (MEK) Used in Chemical Welding Process  
**Recipient:** Julie Seel  
**Author:** Beverly Banister  
**Comments:**

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**Subparts:** Part 63, PPPP, Surface Coating of Miscellaneous Plastic Parts and Products

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**References:** 63.4480  
63.4490  
63.4581

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**Abstract:**

Q: Methyl ethyl ketone is used to soften plastic parts at the Sonoco Products plant in Union, South Carolina, so that they can be joined or welded together in a process that does not leave any nonvolatile residual material on the joined parts. Is this process subject to 40 CFR part 63, subpart PPPP?

A: No. Applicability of MACT subpart PPPP depends on the mass of coating solids remaining on the joined pieces to determine an emission limit. Since this process does not involve any mass of coating solids, the provisions of MACT subpart PPPP do not apply to the operation.

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**Letter:**

4APT-APTMD

Ms. Julie Seel  
Air Toxics Section  
Bureau of Air Quality  
South Carolina Department of Health  
& Environmental Control  
2600 Bull Street  
Columbia, SC 29201-1708

Dear Ms Seel:

This letter is in response to your March 25 letter to Ms. Kim Teal of the Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards in which you sought EPA's determination concerning the applicability of 40CFR Part 63, Subpart PPPP, National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Plastic Parts and Products to an operation at the Sonoco Products Company Pickney plant located in Union, South Carolina. In its March 8, 2004, letter to you, Sonoco stated that they plan to add new processes at the facility that would use methyl ethyl ketone (MEK) and that would have the potential to be a major source of HAP emissions. Sonoco intends to use MEK "only to form a chemical weld between two or more plastic pieces and would be applied only to the joint area." According to Sonoco, the MEK would not be mixed with any other material, and would be used only as received in commercial form. Your March 25, 2004 letter to Ms. Teal elaborates on the Sonoco process, saying:

...one end of a plastic spool is dipped into a small opening containing methyl ethyl ketone (MEK). The MEK softens the plastic so that the two ends of the spool may be joined together permanently. It is the company's assertion that this process is not covered by Subpart PPPP since it is not applying a "coating," but merely joining plastic parts.

The definition of coating in Section 63.4581 specifically includes adhesives, and adhesive is defined in that section as any chemical substance that is applied for the purpose of bonding two surfaces together. MEK is applied for the purpose of bonding two surfaces in the Sonoco process. Hence, the Sonoco operation is applying a coating according to the definitions in the rule.

Under Section 63.4490 (a)(1) and (b)(1), the emission limit that applies to surface coating operations for plastic parts depends on the mass of coating solids that will be used over a 12- month compliance period. Coating solids are defined in Section 63.4581 as the nonvolatile portion of the coating that makes up the dry film. We understand from the Sonoco letter that Sonoco will apply no nonvolatile chemical in the coating process. Hence, there will be no coating solids involved in the process and no residual dry film. In light of the rule's dependence on the mass of coating solids for determining an emission limit for a particular operation, the absence of any coating solids from Sonoco's MEK bonding process precludes the determination of an appropriate emission limit under Section 63.4490. Therefore, it is inappropriate to apply the provisions of Subpart PPPP to the Sonoco

operation.

Accordingly, Region 4 has determined that the Sonoco bonding operation described in their March 8, 2004, letter and your March 25, 2004, letter is not subject to 40 CFR Part 63, Subpart PPPP, National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Plastic Parts and Products. This determination has been developed in cooperation with EPA's Office of Air Quality Planning and Standards and Office of Enforcement and Compliance Assurance.

Should you have any questions concerning this determination, please contact Paul Wagner of the Region 4 Air Toxics Assessment and Implementation Section at 404-562-9100.

Sincerely,

Beverly H. Banister  
Director  
Air, Pesticides and Toxics  
Management Division